International Atomic Energy Agency
GENERAL CONFERENCE

GC

GC(42)/16
26 August 1998

GENERAL Distr.
Original: ENGLISH

Forty-second regular session
Item 18 of the provisional agenda
(GC(42)/2)

IMPLEMENTATION OF THE AGREEMENT BETWEEN THE AGENCY AND THE DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA FOR THE APPLICATION OF SAFEGUARDS IN CONNECTION WITH THE TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS

Report by the Director General to the General Conference

1. In resolution GC(41)/RES/22 of 3 October 1997, the General Conference, inter alia, decided:

> "to ... include in the agenda for its forty-second regular session an item entitled 'Implementation of the agreement between the Agency and the Democratic People's Republic of Korea for the application of safeguards in connection with the Treaty on the Non-Proliferation of Nuclear Weapons.'"

This report has been prepared to provide information to the General Conference in its consideration of this item of its agenda.

SITUATION PREVAILING AT THE TIME OF THE FORTY-FIRST REGULAR SESSION OF THE GENERAL CONFERENCE

2. The Director General's report to the General Conference in 1997, in document GC(41)/17 of 18 August 1997, gave the background to the developments which had taken place during the previous year in the implementation of safeguards in the Democratic People's Republic of Korea (DPRK) pursuant to the DPRK's Safeguards Agreement with the Agency (INFCIRC/403) and described those developments. They included the lack of progress, during a number of technical meetings, on the issue of preservation of information which must remain available to enable the Agency to verify in the future the correctness and completeness of the DPRK's initial declaration under its Safeguards Agreement; the continuous refusal by the DPRK to accept measures at the reprocessing plant, such as the measurement of liquid nuclear waste to verify that there is no movement or any operation involving such waste; the limitations imposed by the DPRK regarding the conditions of the

For reasons of economy, this document has been printed in a limited number.
Delegates are kindly requested to bring their copies of documents to meetings.

"freeze" and concerning access by inspectors for visiting from time to time technical support buildings at facility sites subject to the freeze, which had not been placed under the freeze measures in November 1994 because the DPRK stated at that time that the DPRK have changed the scope of operations of these buildings; the DPRK's agreement to some verification activities, such as surveillance and containment measures; the DPRK's agreement to designations of additional inspectors; the DPRK's undertakings for improvement in the means of communications between the Agency and the DPRK; the completion to about 90% of the canning operation of the irradiated fuel rods from the 5 MW(e) Experimental Power Reactor and the maintenance by the Agency of a continuous presence of inspectors in the Nyongbyon area.

3. Report GC(41)/17 recorded that, while the sixth and seventh rounds of technical discussions resulted in some progress in communications and inspector designation issues, the DPRK had continued to refuse to permit a number of important measures, including those noted above, which had been left open since the first technical meeting.

4. In light of this and of the Director General's report in document GC(41)/17, the General Conference adopted resolution GC(41)/RES/33. By that resolution, the General Conference, inter alia, strongly endorsed the actions taken by the Board and commended the efforts taken by the Secretariat to implement the Safeguards Agreement and to monitor the freeze of specific facilities in the DPRK; it also expressed concern over the continuing non-compliance of the DPRK with the IAEA-DPRK Safeguards Agreement, called upon the DPRK to comply fully with that Safeguards Agreement and urged it to co-operate fully with the Agency in the implementation of that Agreement and to take all steps the Agency may deem necessary to preserve all information relevant to verifying the accuracy and completeness of the DPRK's initial report on the inventory of nuclear material subject to safeguards until the DPRK comes into full compliance with its Safeguards Agreement.

DEVELOPMENTS SINCE THE FORTY-FIRST REGULAR SESSION OF THE GENERAL CONFERENCE

5. At the meeting of the Board of Governors on 8 December 1997, the Director General reported on the eighth round of technical discussions between the IAEA and the DPRK which took place in Vienna from 21 to 24 October 1997. The Director General noted that no progress was made during the eighth round on the outstanding issues associated with the DPRK's compliance with its Safeguards Agreement, including the preservation of information which must remain available to enable the Agency to verify in the future the correctness and completeness of the DPRK's initial declaration.

6. At the meeting of the Board of Governors on 16 March 1998, the Director General reported on the ninth round of technical discussions, which took place on 24-28 February 1998 in Pyongyang. No progress was made with regard to such important issues as the preservation of information, or on the sampling and measurement of liquid wastes at the reprocessing plant. In addition, the DPRK refused to agree to the taking of environmental swipe samples at the hot cell of the research reactor which is presently under a routine inspection regime, since the DPRK considers that its Safeguards Agreement is not fully in force. There was no progress on the issue of access by inspectors to technical support

buildings at the facilities subject to the freeze. The Director General stated that, following the completion of the canning operation expected to take place in May 1998, the continuous presence of Agency inspectors in Nyongbyon would be reduced from three to two.

7. At the meeting of the Board of Governors on 8 June 1998, the Director General underlined the fact that the Safeguards Implementation Report (SIR) for 1997 reported the continuing inability of the Agency to verify the correctness and completeness of the DPRK's initial report and the Agency's inability to conclude that there has been no diversion of nuclear material. The Director General informed the Board of the suspension of canning operations of spent fuel rods at the 5 MW(e) experimental power reactor in late April at the DPRK's request. By that time 97% of the irradiated discharged rods were canned and under Agency seal. The completion of canning was also linked by the DPRK with progress in implementing the tasks foreseen in the Agreed Framework.

8. The Director General also reported that the DPRK requested the Agency, in a letter of 3 April 1998, to make the necessary arrangements to enable the operators to build a heavy oil-fuelled boiler at the site of the 5 MW(e) Experimental Power Reactor, a facility which is subject to the freeze. According to the DPRK, the proposed boiler would produce electricity and also steam for district heating. In connection with this, the DPRK intended to use existing equipment, such as turbines and generators, located at different buildings at the reactor site. The Agency, after appropriate consultations, did not object to this construction and operation of the boiler for the purposes stated on the understanding that Agency inspectors can visit the boiler building and other related support buildings so as to confirm that the new scope of operations of these buildings is not relevant to the purpose of the freeze. The DPRK confirmed this understanding on 22 May 1998. The Director General further informed the Board that on 11 May 1998 the DPRK requested the Agency to make the necessary arrangements at the Radiochemical Laboratory (the reprocessing plant), including detachment of some seals, for inspection and maintenance activities by the operator. In response, the Agency noted that all maintenance work should be done under observation by inspectors and that no decontamination activities or the introduction or transfer of solutions in the process system should be carried out since such activities could affect the preservation of information. Maintenance started on 27 May 1998.

9. The tenth round of technical discussions took place on 24-26 June 1998 in Pyongyang. No progress was made on any of the pending issues. Moreover, the DPRK continued to deny inspectors access to technical buildings which are not subject to the freeze measures in the facility sites of the 5 MW(e) Experimental Power Reactor, the Radiochemical Laboratory and the Fuel Fabrication Plant in order to confirm that the new scope of activities of the buildings is not relevant for the purpose of the freeze. The DPRK reported that in view of the continuing corrosion of the remaining non-canned rods, there are only two options available to them: either to reprocess those rods or to can them. The DPRK linked the maintenance activities performed at the Radiochemical Laboratory to the possibility of reprocessing the rods. The DPRK further reported that they are preparing a maintenance plan for the 5 MW(e) Experimental Power Reactor and for the fresh fuel rods. For the purpose of the maintenance of the fresh fuel rods they indicated their plans to transfer 8000 rods (corresponding to one full reactor core loading) from the present location outside the 5 MW(e) experimental power reactor to the fresh fuel storage in the reactor building. The Agency indicated that such a

transfer would not be compatible with the purpose of the freeze or of any maintenance requirements. During the technical meeting the DPRK requested the Agency to make the necessary arrangements to enable the operator to perform a hydraulic test of the mixer-settlers at the Radiochemical Laboratory. Procedures for such testing were discussed and remain under Agency review. The Agency has to ascertain that such a test would not result in removal or alteration of the signatures of past activities.

10. As of the date of this report there have been no new developments to alter the assessment provided to the Board in March and June. Progress in discussions has been repeatedly linked by the DPRK with progress in the implementation of the Agreed Framework and the DPRK has recently expressed its disappointment with the progress made up to now. The ground breaking for the construction of two 1000 MW(e) light water nuclear reactors took place at Sinpo on 19 August 1997.

11. Co-operation from the DPRK side remains limited. The DPRK has accepted some verification activities, such as containment and surveillance measures, which the Agency needs in order to carry out the monitoring of the freeze. During 1998, there has been further improvement in the means of communication between the General Department of Atomic Energy of the DPRK and the relevant Division of Operations of the Department of Safeguards of the Agency. The DPRK has accepted the replacement of the present surveillance systems with the new digital surveillance and agreed to the designation of additional inspectors. They have also agreed to the installation, as of October 1998, of an integrated monitoring system on the mixer-settler motors at the reprocessing plant which will provide information about whether such motors have been put into operation and for how long.

12. The DPRK has, however, refused to agree to other measures, such as the installation of Agency monitoring equipment at nuclear waste tanks or any sampling or measurements by the Agency at any location in the reprocessing plant. Moreover, the DPRK continues its refusal to allow measurements for assessing the total amount of plutonium in the spent fuel rods from the 5 MW(e) Experimental Power Reactor.

13. In January 1997, the DPRK clarified that the nuclear graphite which was manufactured for the use at the 50 MW(e) power reactor under construction at the time of the freeze is subject to monitoring by the Agency. About half of the required graphite blocks were presented to the Agency and it was stated that manufacturing of such blocks and other nuclear related equipment and components had been stopped since July 1993. This statement still awaits formal confirmation by the DPRK. In January 1998, the DPRK presented some additional graphite blocks for the purpose of monitoring. However, the DPRK has not agreed to any sampling of the graphite blocks, which could confirm whether the presented graphite inventory is of nuclear grade.

14. Regrettably, the fundamental difference of view between the Agency and the DPRK regarding the current status of the Safeguards Agreement remains unchanged. The Agency regards the Safeguards Agreement with the DPRK as binding and in force. The DPRK accepts Agency activities solely within the context of the Agreed Framework. Therefore, they accept ad hoc and routine inspections only at the facilities not subject to freeze, but at the same time they decline any implementation of the safeguards strengthening measures at these facilities.

15. The Director General has provided the Minister of Foreign Affairs of the DPRK with the Model Additional Protocol (INFCIRC/540). A copy of the Model Additional Protocol, together with information regarding the Secretariat's discussion with various States, was also provided to the DPRK during the technical meetings.

16. The Agency maintains the continuous presence of inspectors in Nyongbyon. Three inspectors are to be kept in the field to cover the requirements of observing the maintenance activities and implementing the inspection activities, including the monitoring of the freeze.